Determination of Potential Agricultural Conservation Savings (Low End of Range)
Tulare Lake Basin

Input Data from DWR

Applied Water	9,209	(1,000 af)
Depletion	7,496	(1,000 af)
ET of Applied Water	6,894	(1,000 af)

Assumptions for Calculations

1. Ave. Leaching Fraction =	12%
adjustment factor =	1.25
2. % lost to Channel Evap/ET [3] =	3%

3. Assumed allocation of conservation betw District and On-farm
district portion = 1/3 of savings * "adjustment factor"

canal lining:	0.5	
tailwater:	1	(adjustment factor
flexibility:	1.5	based on region variation
meas/price:	1.5	in water districts)
	4.5	(points for this region's districts
		of 4 points for average)
	1.125	**= adjustment factor**
	37%	= district portion
	63%	= on-farm portion

Calculations from Input Data

	(1,000 af)	
Total Existing Losses	2315	(Diff betw. Applied Water and ETAW)
Total Irrecoverable losses	602	(Diff betw. Depletion and ETAW)
Total Recoverable losses	1,713	(Diff betw. Applied Water and Depletion)
Ratio of Irrecoverable Loss	26%	(Irrecov divided by total existing losses)
Portion lost to leaching	269	(Leach Fraction * ETAW * Irrec. Loss Ratio * Adj. Factor)
Portion lost to Channel Evap/ET	276	(Applied Water * % lost to Channel Evap/ET)
Total Loss Conservation Potential	1,770	(Total Existing loss - portion to leaching - portion to channel evap/ET)
Irrecoverable Portion	57	(Irrec loss - portion to leaching - portion lost to channel evap/ET)
Recoverable Portion	1,713	(Total Existing loss - Irrecoverable Loss Portion)

Incremental Distribution of Conservable Portion of Losses

		Distrib. Factor	Applied Water Reduction [1] (1,000 ac-ft)	Irrec. Loss Reduction [2] (1,000 ac-ft)	Rec. Loss Reduction (1,000 ac-ft)
No Action Increment =	1st 40%	0.40	708	23	685
CALFED Increment =	next 30%	0.30	531	17	514
Remaining =	final 30%	0.30	531	17	514
			1,770	57	1,713

Summary of Savings:

Existing Applied Water Use = 9,209

Total Potential Reduction of Application

(1,000af)	Existing	No Action	CALFED	Total
On-Farm	--	443	332	775
District	--	265	199	464
Total	2,315	708	531	1,239

Recovered Losses with Potential for Rerouting Flows

(1,000af)	Existing	No Action	CALFED	Total
On-Farm	--	429	321	750
District	--	257	193	450
Total	1,713	685	514	1,199

Potential for Recovering Currently Irrecoverable Losses

(1,000af)	Existing	No Action	CALFED	Total
On-Farm	--	14	11	25
District	--	9	6	15
Total	602	23	17	40

Notes:
1. Calculated as the distribution factor times the "conservable portion" of the total existing loss. The first 40% of savings potential occurs under *No Action*. The next 30% of saving potential is the CALFED increment. The final 30% is considered "non-conservable".
2. Calculated as the distribution factor times the "conservable portion" of irrecoverable loss. The first 40% of savings potential occurs under No Action. The next 30% of saving potential is the CALFED increment. The final 30% is considered "non-conservable".
3. Derived from comparing consumptive conveyance loss values from USBR *Least-Cost CVP Yield Increase Plan*, T.A #3 (Sept. 1995) to applied water values for the region. A range of 2 to 4% was used to account for uncertainty. This value accounts for consumption by bank and riparian vegetation and channel evaporation.

Determination of Potential Agricultural Conservation Savings (High End of Range)
Tulare Lake Basin

Input Data from DWR

Applied Water	9,209	(1,000 af)
Depletion	7,496	(1,000 af)
ET of Applied Water	6,894	(1,000 af)

Assumptions for Calculations

1. Ave. Leaching Fraction =	8%
adjustment factor =	1.25
2. % lost to Channel Evap/ET [3] =	2%

3. Assumed allocation of conservation betw District and On-farm
district portion = 1/3 of savings * "adjustment factor"

canal lining:	0.5	
tailwater:	1	(adjustment factor
flexibility:	1.5	based on region variation
meas/price:	1.5	in water districts)
	4.5	(points for this region's districts
		of 4 points for average)
	1.125 = adjustment factor	
	37% = district portion	
	63% = on-farm portion	

Calculations from Input Data

(1,000 af)

Total Existing Losses	2315	(Diff betw. Applied Water and ETAW)
Total Irrecoverable losses	602	(Diff betw. Depletion and ETAW)
Total Recoverable losses	1,713	(Diff betw. Applied Water and Depletion)
Ratio of Irrecoverable Loss	26%	(Irrecov divided by total existing losses)
Portion lost to leaching	143	(Leach Fraction * ETAW * Irrec. Loss Ratio * Adj. Factor)
Portion lost to Channel Evap/ET	184	(Applied Water * % lost to Channel Evap/ET)
Total Loss Conservation Potential	1,987	(Total Existing loss - portion to leaching - portion to channel evap/ET)
Irrecoverable Portion	274	(Irrec loss - portion to leaching - portion lost to channel evap/ET)
Recoverable Portion	1,713	(Total Existing loss - Irrecoverable Loss Portion)

Incremental Distribution of Conservable Portion of Losses

		Distrib. Factor	Applied Water Reduction [1] (1,000 ac-ft)	Irrec. Loss Reduction [2] (1,000 ac-ft)	Rec. Loss Reduction (1,000 ac-ft)
No Action Increment =	1st 40%	0.40	795	110	685
CALFED Increment =	next 30%	0.30	596	82	514
Remaining =	final 30%	0.30	596	82	514
			1,987	274	1,713

Summary of Savings:

Existing Applied Water Use = 9,209

Total Potential Reduction of Application

(1,000af)	Existing	No Action	CALFED	Total
On-Farm	--	497	373	870
District	--	298	223	521
Total	2,315	795	596	1,391

Recovered Losses with Potential for Rerouting Flows

(1,000af)	Existing	No Action	CALFED	Total
On-Farm	--	429	321	750
District	--	257	193	450
Total	1,713	685	514	1,199

Potential for Recovering Currently Irrecoverable Losses

(1,000af)	Existing	No Action	CALFED	Total
On-Farm	--	69	51	120
District	--	41	31	72
Total	602	110	82	192

Notes:
1. Calculated as the distribution factor times the "conservable portion" of the total existing loss. The first 40% of savings potential occurs under *No Action*. The next 30% of saving potential is the CALFED increment. The final 30% is considered "non-conservable".
2. Calculated as the distribution factor times the "conservable portion" of irrecoverable loss. The first 40% of savings potential occurs under No Action. The next 30% of saving potential is the CALFED increment. The final 30% is considered "non-conservable".
3. Derived from comparing consumptive conveyance loss values from USBR *Least-Cost CVP Yield Increase Plan*, T.A #3 (Sept. 1995) to applied water values for the region. A range of 2 to 4% was used to account for uncertainty. This value accounts for consumption by bank and riparian vegetation and channel evaporation.